

REMARKS/ARGUMENTS

Claims 1-13 and 15-33 are pending in the present application. A Listing of Claims has been provided above. Claims 1-13 and 15-33 are pending in this application. Reconsideration and further examination of claims 1-13 and 15-33 are respectfully requested.

Claim Rejections – 35 USC § 103

Claims 1-13, 15-26 and 30-33 are rejected under 35 USC § 103(a), as being unpatentable over Smee et al. (WO 02/09305) (hereinafter “Smee”) in view of Porter et al. (U.S. Patent No. 6,167,081) (hereinafter “Porter”) and Frank (U.S. 2004/0042537). This rejection is hereby traversed and reconsideration and withdrawal thereof are respectfully requested. The following is a comparison of embodiments of the present invention, as currently claimed, with the applied references.

On page 3 of the Action, the Examiner notes that Smee fails to teach or suggest comparing the first quality metric of the RAKE processed signals to a first threshold value; and when the first quality metric exceeds the first threshold value, enabling an equalizer to operate concurrently with the RAKE processing element, as recited in independent claim 1, for example. Thus, Porter (Fig. 11, element 153, and column 12, lines 23-51) is cited as disclosing these features.

The cited portion of Porter describes a method for updating a “hybrid” of the non-equalizing demodulator 48 and the equalizing demodulator 46, “as shown in Fig. 3” (see Porter, column 12, lines 59-61). In Fig. 3, Porter shows a digital receiver including an equalizing demodulator 46 and a non-equalizing demodulator 48, each capable of processing a baseband signal from line 44 to produce digital bit streams on lines 52 and 54, respectively. The system of Porter includes an output control selector 50 that generates control signals on a line 56, which are used to selectively enable and disable the equalizing demodulator 46 and the non-equalizing demodulator 48, depending on a decision by switch 70. “The decision as to whether the equalizing demodulator 46 or the non-equalizing demodulator 48 is used to generate the digital bit stream is made by the switch 70...” (emphasis added). (See column 5, lines 51-54, and column 5, line 53, to column 6, line 35). Therefore, according to the hybrid system of Porter, *either* the equalizing demodulator or the non-equalizing demodulator is used at any one time, depending on which demodulator produces a lower BER average, as compared to a given threshold.

Even though Porter shows a “hybrid” receiver with both a non-equalizing demodulator and an equalizing demodulator, only one or the other is operated at a given time. As shown in Fig. 4, the decision of the switch 70 regarding which demodulator to employ is signaled via line 56 to enable or disable the appropriate demodulator. Both the non-equalizing demodulator and the equalizing demodulator of Porter are never operated *concurrently*. As a result, Porter fails to teach or suggest that when the first quality metric exceeds the first threshold value, enabling an equalizer to operate *concurrently* with the RAKE processing element.

As an illustrative advantage of embodiments of the present invention, the hybrid equalizer and RAKE receiver architecture may operate the equalizer concurrently when gains in performance may be realized, thus providing power reduction by disabling the equalizer when a decision algorithm determines that its use will not enhance performance. (See paragraph [0063] of the present specification).

It is noted that Frank was not cited as showing these features, nor does it show or suggest such features. Hence even if properly combinable, the combination of Smee, Porter and Frank cannot make obvious the claims of the present invention as none of the cited references suggests concurrent operation of an equalizer and a RAKE processing element when a first quality metric exceeds the first threshold value.

The remaining pending independent claims recite features similar to those described above for independent claim 1. Thus, for at least the reasons provided herein, it is respectfully submitted that all of the independent claims patentably distinguish over the cited references, alone or in combination. The pending dependent claims inherit the patentability of their respective base claim and are therefore patentably for at least the reasons provided above. Claims 27-29 are rejected under 35 USC § 130(a) as being unpatentable over Smee in view of Porter, or in view of Porter and Frank and further in view of Cheng-Quispe et al. (Re. 33,380).

Claims 27-29 depend from independent claim 19, which, as stated above, patentably distinguishes over the prior art. Further, Cheng-Quispe et al. does not disclose the features of determining whether to enable the equalizer, to operate concurrently with the RAKE processing element, based on the comparison. Therefore, claims 27-29 patentably distinguish over the prior art for at least the reasons provided above.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Dated: Dec. 13, 2007

Respectfully submitted,

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